

**METHOD AND APPARATUS
FOR PASSIVELY CALCULATING LATENCY
FOR A NETWORK APPLIANCE**

Abstract

5 A device that passively monitors arriving and departing data packets on one or more
networks, correlates arriving data packets with departing data packets, and calculates a latency
estimate based on the confidence of the correlation. The device detects and copies data packets
arriving at a network device and the data packets departing from the same network device. A
timestamp is stored for each arriving or departing data packet. Latency across a network device
10 can be determined based on the timestamps for correlating data packets. Additionally, latency
across a network device per protocol layer can also be calculated. Varying levels of confidence
of a latency estimation depend on the operation necessarily performed on the data packet by the
network device and the protocol level at which correlation between the arriving and departing
data packets can be achieved.

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